



## AASHTO

A Policy on the Accommodation of Utilities  
Within Freeway Right-of-Way, 1989

# **A Policy On the Accommodation Of Utilities Within Freeway Right-Of-Way**

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Prepared by the  
AASHTO Standing Committee on Highways



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# A Policy on the Accommodation of Utilities Within Freeway Right-of-Way

## INTRODUCTION

The Geometric Design Standards for the National System of Interstate and Defense Highways adopted by the American Association of State Highway Officials on July 12, 1956, and accepted by the Bureau of Public Roads on July 17, 1956, provide, in accordance with Section 109 of Title 23, U.S. Code, Highways, 1958, for control of access on all sections of the Interstate System. These provisions were established to provide for the maximum degree of safety and to preserve the traffic-carrying capacity, both of which are warranted by the large public fund investment in the facility. There are also other freeways with similar control of access features which are not part of the Interstate System.

Control of access can be materially affected by the extent and manner in which public utilities cross or otherwise occupy the highway right-of-way. The highway agencies have various degrees of authority to develop and maintain control of access and to regulate utilities, generally through their authority to designate and to control the use made of right-of-way acquired for public highways, including those of all freeways. Their authorities depend upon State laws or regulations. These laws and regulations differ in the several States and may be different in a State for highways utilizing existing right-of-way and for highways on new location for which right-of-way is to be acquired. A State may also have separate laws and regulations different from those applicable statewide, for highways on right-of-way subject to jurisdiction of a local government such as that of a large city.

In order to carry out the intent of Title 23, U.S. Code, a uniform policy is needed to establish the conditions under which public and private utilities may be accommodated on the freeway right-of-way. The following statements constitute such a policy. While the policy has as its primary purpose increasing and maintaining highway safety and function to the maximum and insuring uniformity of utility treatment among the States, it recognizes the public interest in avoiding unnecessary and costly operation of public utility organizations. The policy applies to all highways with full control of access, regardless of system. Also, it has value as a guide for all highways with partial control of access. For highways without control of access refer to AASHTO's *A Guide for Accommodating Utilities on Highway Right-of-Way*. The policy can be applied in most States by existing authority. Those States in which laws will not permit the application of this policy in its entirety should strive for uniformity through the enactment of appropriate legislation.

It is not the intent of this policy to impose restrictions on the future installations of utility crossings to the extent that would obstruct the development of expanding areas adjacent to the freeways.

This policy makes no reference to reimbursement to utility owners for the cost of adjusting or installing utilities on freeways. Reimbursement is subject to State laws.

It is the intent of this policy to establish procedures whereby the individual State highway authorities may uniformly administer the same.

# STATEMENT OF POLICY

## 1. Utilities to Which Policy Applies

The principles set forth in this policy apply to all public and private utilities including but not limited to communication, electric power, water, gas, oil, petroleum products, steam, sewer, drainage, irrigation, and similar facilities. Such utilities may involve construction and maintenance of underground, surface or overhead facilities, either singly or in combination.

This policy shall apply to utilities located within public freeway right-of-way.

This policy does not apply to utility lines for servicing facilities required for operating the freeway.

## 2. New Utility Installations Along Freeways

New utilities will not be permitted to be installed longitudinally within the control of access lines of any freeway, except that in special cases such Installations may be permitted under strictly controlled conditions. Utilities will not be allowed to be installed longitudinally within the median area.

Where such longitudinal installations are requested, the utility owner must in each case show to the State highway agency's satisfaction:

- A. That the accommodation will not adversely affect highway and traffic safety.
- B. That alternate locations are not available or cannot be implemented at reasonable cost, from the standpoint of providing efficient utility services in a manner conducive to safety, durability, and economy of maintenance and operations; that the accommodation will not adversely affect the design, construction, operation, maintenance, or stability of the freeway; and that it will not interfere with or impair the present use or future expansion of the freeway.
- C. That disapproval of the use of the right-of-way would result in the loss of productive agricultural land, or loss of productivity of agricultural land, if any. In this case, the utility must provide information on the direct and indirect environmental and economic effects of such loss, which effects will be evaluated and considered by the highway agency.

- D. That the accommodation satisfies the conditions of Item 7, "Access for Constructing and/or Servicing Utilities."

All longitudinal utility accommodations as may be warranted herein shall only be in accordance with an approved permit issued by the State highway agency.

Where longitudinal utility installations must traverse interchange areas, they shall be located and treated in the same manner as utility crossings within interchange areas, as in Item 5 which follows.

Service connections to adjacent properties shall not be permitted from longitudinal utility installations located within the access control lines of a freeway.

## 3. Existing Utilities Along Proposed Freeways.

Where a utility already exists within the proposed right-of-way of a freeway and it can be serviced, maintained and operated without access from the through traffic roadways or ramps, it may remain as long as it does not adversely affect the safety, design, construction, operation, maintenance or stability of the freeway. Otherwise, it must be relocated, except for special cases as covered by Item 2.

## 4. Major Valley Crossings

Where a freeway crosses a major valley or river on an existing structure, any utility carried by said structure at the time the highway route is improved may continue to be so carried when relocation of the utility would be very costly and provided the utility can be serviced without interference with road users.

Expansion of a utility carried by an existing structure across a major valley or river may be permitted provided the utility can be installed and serviced without interference with road users.

A new utility will not be permitted to be installed on a structure across a major valley or river at and after the time the highway route is improved, except for special cases as covered by Item 2.

## 5. Utilities Crossing Freeways

New utility installations and adjustments or relocations of existing utilities may be permitted to cross a freeway. To the extent feasible and practicable they should cross on a line generally normal to the freeway alignment and preferably under the freeway.

### **5(A) Utilities Along Roads or Streets Crossing Freeways**

Where a utility follows a crossroad or street which is carried over or under a freeway, provision should be made for the utility to cross the freeway on the locations of the crossroad or street in such manner that the utility can be constructed and/or serviced without access from the through-traffic roadways or ramps. Generally the utilities are to be located within the right-of-way of the crossroad or street, existing or relocated, and may cross over or under the freeway or be carried on or through the highway grade separation structure, provided installation and servicing thereof can be accomplished without access from the through-traffic roadways or ramps. Where distinct advantage and appreciable cost saving is effected by locating the utilities outside the right-of-way of the crossroad or street they may be so located, in which case they shall be located and treated in the same manner as utility lines crossing the freeway at points removed from grade separation structures as in (B) and (C) which follow.

### **5(B) Overhead Utility Crossings**

Overhead utility lines crossing a freeway at points removed from grade separation structures, or those crossing near a grade separation but not within the right-of-way or a crossroad or street, in general, should be adjusted so that supporting structures are located outside the outer edges of through-traffic roadway side slopes and preferably outside the control access lines. In any case supporting poles shall not be placed within the appropriate clear zone as designated in the current edition of the AASHTO publication *Roadside Design Guide*. Where spanning limitations so require, intermediate supporting poles may be placed in medians of sufficient width to provide the above referenced clear zone from the edges of both roadways, provided the conditions of Item 7, "Access for Constructing and/or Servicing Utilities," are also met. If additional lanes are planned, the clear zone shall be determined from the ultimate edges of the roadway. Where right-of-way lines and control of access lines are not one and the same, as where frontage roads are provided, supporting poles may be located in the area between them. In extraordinary cases where such spanning of the roadways is not feasible, consideration may be given to conversion to underground facilities to cross the freeway.

At interchange areas, in general, support for overhead utilities should be permitted only where all of the following conditions are met: (a) the above indicated clear zone is provided with respect to the freeway through-traffic lanes, (b) the appropriate clear zone from edge of ramp is provided as designated in the above referenced AASHTO *Roadside Design Guide*, (c) essential sight distance is not impaired, and (d) the conditions of Item 7, "Access for Constructing and/or Servicing Utilities," are satisfied.

The vertical clearance to overhead utility lines crossing freeways shall be determined by the State but in no case shall be less than the clearance required by the National Electrical Safety Code, ANSI c2, Institute of Electrical and Electronics Engineers Inc.

### **5(C) Underground Utility Crossings**

Utilities crossing underground below the freeways shall be of durable materials and so installed as to virtually preclude any necessity for disturbing the roadways to Perform maintenance or expansion Operations. The design and types of materials shall conform with appropriate governmental codes and specifications. Where conditions are such that the drainage structures can accommodate the utility, and the utility crossing can not reasonably be accomplished in some other manner, drainage structures may be used on a temporary basis for a utility crossing on a permit basis.

Manholes and other points of access to underground utilities may be Permitted within the right-of-way of a freeway only when they are located beyond the shoulders of the through-traffic roadways or ramps as planned for later widening, if any, and provided the conditions of Item 7, "Access for Constructing and/or Servicing Utilities," are satisfied.

### **5(D) Irrigation Ditches and Water Canals**

Except for necessary Crossings, water canals and irrigation ditches should be excluded from the right-of-way of freeways, except for special cases as covered by Item 2. Crossings may be made by underground siphon, or through culverts, or bridges as appropriate to the size of canal, topographic conditions, and highway safety aspects. In general, locations and structures are to be designed in the same manner as are facilities for natural transverse drainage.

All access and egress for servicing or patrolling such facilities shall be from outside the control of access lines. Ditch-walkers or ditch-riders shall not be permitted to indiscriminately cross the freeway at grade. Under appropriate traffic control arrangements, special ditch cleaning equipment may be permitted to cross in those cases where considerable extra travel distance would otherwise be required to utilize grade separation structures.

### **5(E) Provisions for Expansion of Utilities**

When existing utilities are relocated or adjusted in conjunction with construction of a freeway, provision may be made for known and planned expansion of the utility facilities, particularly those underground. They

should be planned to avoid interference with traffic at some future date when additional or new overhead or underground lines are installed.

## **6. Utilities in Vehicular Tunnels**

As a general rule utilities will not be permitted to occupy vehicular tunnels on freeways on new location, except in special cases as covered by Item 2.

Utilities which transport a hazardous material shall not be allowed in a vehicular tunnel under any circumstances.

Where a utility occupies space in an existing vehicular tunnel that is conveyed to a freeway, relocation of the utility may not be required. Utilities which have not previously occupied an existing vehicular tunnel that is incorporated in a freeway win not be permitted therein, except in special cases as covered by Item 2.

## **7. Access for Constructing and/or Servicing Utilities**

In general, utilities are to be located and designed in such a manner that they can be constructed and/or serviced without direct access from the through roadways or connecting ramps. Such direct access shall not be Permitted except for special cases where alternate locations and/or means of access are unavailable or impractical due to terrain and/or environmental constraints, and such use will not adversely affect safety or damage the state's facility. Where direct access is requested, a permit must be obtained from the highway agency.

Access for construction and/or servicing a utility along or across a freeway should be limited to access via (a) frontage roads where provided, (b) nearby or adjacent public roads and streets, or(c) trails along or near the highway right-of-way line, connecting only to an intersecting road, from any one or all of which entry may be made to the outer portion of the freeway right-of-way. Subject to Section 111 of Title 23, U.S. Code, a locked gate along the freeway fence may be utilized to meet periodic service access needs. Where a gate is allowed, it will be documented by an approved permit which will include adequate provision against unauthorized use.

In those special cases where utility supports, manholes, or other appurtenances are located in medians, interchange areas, or otherwise inaccessible portions of freeway rights-of-way, access to them from through-traffic roadways or ramps may be permitted when other alternatives do not exist. Such access shall be by permit setting forth the conditions for policing and other controls to protect highway users.

Entry to the median area should be restricted where possible to nearby grade separation structures, stream channel crossings, or, other suitable locations not involving direct access from through roadways or ramps.

Where utilities are located outside the control of access line and where such utilities may require maintenance from within the freeway right-of-way, a permit must be obtained from the highway agency.

All permits will include adequate provisions for control of access to the utility work zone, direction of traffic and protection of workers and the traveling public.

Advance arrangements should also be made between the utility and the highway agency for emergency maintenance procedures.

## **8. Construction and Location Details**

The highway agency which constructs or maintains freeways has the right to review and approve the location and design of all utility installations and adjustments affecting the highway and issue permits for the contemplated work.

## **9. Manner of Making Utility Installations and Adjustments**

In general, utility installations and adjustments are to be made with due consideration to highway and utility costs and in a manner that will provide maximum safety to the highway users, will cause the least possible interference with the highway facility and its operation, and will not increase the difficulty of or cost of maintenance of the highway.

Utility installations and adjustments within freeway right-of-way shall be guided by the AASHTO publication *A Guide for Accommodating Utilities Within Highway Right-of-Way*, as outlined in the "Scope "of said guide.